

## 6. PREVIOUS AUDITS

The Washington State Ferries has had two extensive external reviews in the last decade. In 1991, the Legislative Transportation Committee, through Booze-Allen & Hamilton, Inc., performed a management study of the WSF's vessel refurbishment program. Six years later, in 1997, the Joint Legislative Audit and Review Committee (JLARC), also through Booze-Allen & Hamilton, Inc., conducted a performance audit of the activities and operations of the WSF. The following details the current status of recommendations from each of those audits as provided by WSF and validated by TKW.

### *Department of Transportation Ferry System Performance Audit – 1998 (Report 98-6)*

The 1997/98-performance audit reviewed all system practices to determine how efficiently, effectively, and economically the Washington State Ferries was operated. The scope, defined by JLARC, focused on 50 general and specific questions addressing 20 issues.

The following recommendations of the JLARC Audit Report reflect the audit's proposed completion date for each recommendation along with WSF's proposed completion date. Additionally, the current status of each issue is presented.

---

#### **Recommendation 1:**

Evaluate the current management structure system and identify options to reduce decision cycle time, clarify accountability and responsibility, eliminate conflict, and facilitate access to capital.

Completion Date:     2000 (Audit Recommendation)  
                              2000 (WSF Response)

WSF Response:       Partially Concur.

Status: Washington State Transportation Commission Committee on Washington State Ferries formed in early 1999 and held regular meetings. Committee deactivated in early 2000 as a result of I-695 cutbacks. The group has continued to meet on an informal basis.

**Recommendation 2:**

Develop an Employee Training and Development System.

Completion Date: 1999 for planning; 2001 for implementation (Audit Recommendation)  
2001 (WSF Response)

WSF Response: Partially Concur.

Status: WSF has established a training policy framework to provide oversight and policy direction for its fleet training program and a cross-organizational coordination structure to provide needs assessment, prioritization, and implementation of the program. Two training support positions(1) are currently being recruited.

(1) Four FTE were initially authorized but reduced to two as a result of I-695 funding impacts.

**Recommendation 3:**

Implement recommended organization structure to right the span-of-control situation, create succession planning opportunities, direct focus on “key” strategic areas, and alleviate communication and departmental gaps within the organization.

Completion Date: 2000 (Audit Recommendation)  
2002 (WSF Response)

WSF Response: Partially Concur.

Status: In late 1999, WSF conducted an extensive review of its managerial, support staffing, and capital program staffing. As a result of the review, 92 positions were removed from authorized levels – 60 associated with Referendum 49 projects and 32 resulting from reductions in WSF’s capital program and operations.

The review also focused on organizational structure and span-of-control issues. The Maintenance Department was established and staffed, the purchasing/materials control function was reorganized and realigned, the Operations Department strengthened its operations Center and Regional Offices, Terminal Engineering was restructured, and Vessel Engineering eliminated managerial levels.

**Recommendation 4:**

Conduct a comprehensive job classification & compensation study prior to the next biennium to support collective bargaining negotiations.

Completion Date: 1999 (Audit Recommendation)  
1999 (WSF Response)

WSF Response: Concur.

Status: The Marine Employees Commission (MEC) salary survey was modified based on legislative action to protect confidential data and WSF and union input. The 2001 MEC salary survey, planned for publication in March 2001, will be conducted by the Washington State Department of Personnel.

WSF has also initiated two additional compensation studies to supplement its baseline information. The first is a review of administrative positions and salaries for those represented by the Office and Professional Employees International Union. The second is an effort by WSF, Washington Department of Transportation, and the Department of Personnel comparing WSF compensation levels for ten benchmark ferry positions with data from 26 public and private organizations.

**Recommendation 5:**

Align WSF employee overtime policy to that of state employees, where basic overtime rates will be no greater than 150 percent of base wage.

Completion Date: Next bargaining cycle (Audit Recommendation)  
Next bargaining cycle (WSF Response)

WSF Response: Partially Concur.

Status: WSF believes that existing contractual agreements and the current labor management structure as codified in RCW 47.64, will not allow for the successful implementation of the recommendation. Further, WSF believes that only direct legislative intervention will reduce overtime payments to no greater than 150 percent of base wages.

**Recommendation 6:**

Remove mandatory cost of living adjustment for WSF employees resulting from legislative action, and assign responsibility to WSF and WSDOT management to achieve legislative limits on appropriations.

Completion Date: 1999 (Audit Recommendation)  
Prior to next collective bargaining cycle (WSF Response)

WSF Response: Concur.

Status: No changes to the cost of living authorization bill were made by the legislature for the 1999-2001 biennium. As a result, WSF allocated the 3 percent salary increase for both July 1, 1999 and July 1, 2000. WSF does not anticipate, under current conditions, a different result in the upcoming legislative session.

**Recommendation 7:**

Evaluate the benefits of improving current MEC services or placing WSF employees and labor organizations under the jurisdiction of the Public Employee Relations Commission (PERC) or a similar organization.

Completion Date: 1999 (Audit Recommendation)  
1999 (WSF Response)

WSF Response: Concur.

Status: Implementation of this recommendation would require legislative action altering the existing labor management structure as codified in RCW 47.64. WSF does not anticipate legislative action on this issue in the upcoming session.

**Recommendation 8:**

Develop an Information Technology Plan that leverages current system initiatives, identifies future information and data requirements, leverages technology to achieve operational and organizational efficiencies, and supports management decision making and operational monitoring.

Completion Date: 2000 or sooner (Audit Recommendation)  
2001 (WSF Response)

WSF Response: Concur.

Status: The WSF IT Manager position has been unfilled for over one year and the plan has not been updated since its completion in early 1998. WSF plans to update

this plan prior to the start of the 2001-03 biennium. A new IT Manager has been recently hired (start date, 1/2/2001) and will be tasked with developing an updated plan.

**Recommendation 9:**

Analyze vessel deployment strategies to reduce or eliminate the frequency of non-revenue generating boat moves and refueling operations.

Completion Date: 2001 (Audit Recommendation)  
2001 (WSF Response)

WSF Response: Partially Concur.

Status: Following the passage of I-695, WSF conducted a systematic and comprehensive review of boat trips, including non-revenue boat moves, and created a modified vessel schedule to reduce costs. That schedule was implemented on June 18, 2000 and has resulted in a reduction of 12,539 sailings (through December 13, 2000) from the corresponding time period in 1999.

**Recommendation 10:**

Extend the International Safety Management (ISM) effort to include WSF domestic routes and terminal operations, including the development of documentation defining policies, procedures, and responsibility across the WSF organization.

Completion Date: 1998 for International Route (Audit Recommendation)  
2000 for Domestic Service (Audit Recommendation)  
1998 for International Route (WSF Response)  
2001 for Domestic Service (WSF Response)

WSF Response: Partially Concur.

Status: The extension of the WSF's Safety Management System to routes and terminals will be completed by the end of the current biennium (June 30, 2001). All documentation is complete and the manuals are currently in the process of being prepared for distribution. Documentation includes 41 manuals addressing shore side, vessel, and terminal operations and maintenance for routine critical and emergency conditions. System-wide training will begin in early January 2001 and be completed by March 2001, at which time the Safety Management System will be activated.

**Recommendation 11:**

Develop emergency response and contingency plans for WSF, vessels, and terminals. Documents should address field operations, management and support, and communications.

Completion Date: 2000 (Audit Recommendation)  
2001 (WSF Response)

WSF Response: Concur.

Status: The WSF's full-time Emergency Management Coordinator position was eliminated due to funding constraints imposed after the passage of I-695. Essential duties were restructured as collateral duties of one of WSF's Operations Watch Center Supervisors.

WSF has been able to develop a comprehensive Emergency Management Plan addressing such situations as bomb threats, suicides, vessel-terminal allusions, and public disturbances. In addition, a room at Colman Dock has been established and dedicated as the WSF Emergency Operations Center (EOC). The EOC is equipped with the following:

- Nine dedicated phone lines.
- Five dedicated computers with Automated Operations Support System software for development of event logs, situation reports, and accessing crew/vessel/terminal data.
- Ship-to-shore VHF radio.
- 800mhz radio system with communication capabilities to all WSF vessels, terminals, the Eagle Harbor Shipyard Repair Facility, and the EOC's of WSDOT's Northwest and Olympic Regions.
- WSDOT "intercom" linking EOC's at all regional and modal agencies of WSDOT.
- Regional navigation charts.
- Terminal diagrams.
- Vessel fire safety plans.
- Aerial photos of all WSF terminals.

WSF, in partnership with the US Coast Guard Marine Safety Center Puget Sound, is in the process of developing comprehensive safety management and contingency plans that will satisfy the route and vessel specific requirements of 46 CFR Sub-chapter-W by October 1, 2003. The plan requires a training plan, currently in the final stages of development that supports all aspects of the regulatory requirements.

**Recommendation 12:**

Accelerate implementation of Maintenance Management System (MMS) and redirect current MMS efforts to validate system functionality requirements with users and identify additional development costs.

Completion Date: 2000 (Audit Recommendation)  
2001 (WSF Response)

WSF Response: Concur.

Status: WSF requested funding (\$1,000,000) in the 1999-01 biennium to develop a fully integrated Maintenance Management System. Funding was not approved. WSF is currently seeking a lower cost solution.

**Recommendation 13:**

Restructure the Eagle Harbor Repair Facility (EHRF) operation addressing facilities, staffing levels, workload management, and job cost-estimating processes.

Completion Date: 1999 (Audit Recommendation)  
2001 (WSF Response)

WSF Response: Partially Concur.

Status: In September 1999, WSF's capital program budget allocated \$1.7 million for an Eagle Harbor Master Plan in the 1999–01 biennium followed by \$2.96 million and \$12.15 million in the 2001–03 and 2003–05 bienniums respectively. Passage of I-695 resulted in the removal of the request for funding and no dollars have been allocated to the Eagle Harbor Repair Facility. The current capital plan (2001-03 biennium) has \$745,000 allocated to perform an engineering evaluation of Eagle Harbor and an additional \$4.54 million in the 2003-05 biennium to make minimal repairs to keep the facility operating.

**Recommendation 14:**

Augment Maintenance Management System (to be implemented) with current steel monitoring into a formal Steel Maintenance Program – including systematic monitoring, trend analysis, and coatings strategy.

Completion Date: High Priority for 1999 (Audit Recommendation)

1999 (WSF Response)

WSF Response: Concur.

Status: WSF's Steel Maintenance Program has been designed to ensure that its vessels are maintained in a seaworthy condition to safely carry customers and employees. The program utilizes the US Coast Guard's Navigation and Vessel Inspection Circular (NVIC) 7-68 and the American Bureau of Shipping Rules for Building and Classing Steel Vessels in conducting vessel surveys. The condition of each of the fleet's steel vessels has been determined. Readings of vessel steel are taken and monitored on a periodic basis, work is scheduled as needed, and areas showing deterioration are dealt with in a timely manner. Work to be accomplished is entered in the WSF's Vessel Work Requisition System to ensure it is captured and completed.

All one-compartment vessels in WSF's fleet have been surveyed.

**Recommendation 15:**

Continue implementation of other recommendations made by the 1991 Booz-Allen report that have not been fulfilled.

Completion Date: 2000 (Audit Recommendation)  
2000 (WSF Response)

WSF Response: Concur.

Status: See pages 80-84.

**Recommendation 16:**

Modify legislation controlling ferry firm, fixed-price contracting practices to allow WSF more discretion and flexibility in its procurement/contracting policy.

Completion Date: 1999 (Audit Recommendation)  
1999 (WSF Response)

WSF Response: Concur.

Status: See Chapter 5 – Procurement.

**Recommendation 17:**



Assign a Contract Administrator from the Contracts/Legal Department to new construction, renovation, and preservation contracts over \$10 million.

Completion Date: 1998 (Audit Recommendation)  
1998 (WSF Response)

WSF Response: Concur.

Status: WSF currently engages a Contract Administrator in a contractor status as needed. This position has provided contract administration on several projects including the most recent– the M.V. Yakima preservation.

**Recommendation 18:**

Modify the standard contract language on Contract Problem Reports (CPRs) to require timely submission of proposals to accomplish Indefinite Quantity Work (IQW).

Completion Date: 1999 (Audit Recommendation)  
1999 (WSF Response)

WSF Response: Partially Concur.

Status: Standard contract language on Contract Problem Reports (changed to Contract Reports) was modified to require submission of proposals to accomplish Indefinite Quantity Work within 15 days of receipt of the “proceed with the work” order.

**Recommendation 19:**

Increase the length of time between contract award and ferry shipyard arrival.

Completion Date: 1999 (Audit Recommendation)  
1999 (WSF Response)

WSF Response: Partially Concur.

Status: The length of time between contract award and ferry shipyard arrival was increased.

**Recommendation 20:**

Reduce the amount of preplanned Indefinite Quantity Work (IQW) included in the contract award to no more than 10 percent of the base work package.



Completion Date: 1999 (Audit Recommendation)  
1999 (WSF Response)

WSF Response: Partially Concur.

Status: The amount of preplanned Indefinite Quantity Work (IQW) included in the contract award has been limited to no more than 10 percent of the base work package (less than 2.2% on the WSF's most recent project - M.V. Yakima).

**Recommendation 21:**

Build from WSF's corporate strategy to develop a strategic plan detailing corporate goals/objectives, actions and implementation steps, timing of actions, department and individual responsibilities, costs/benefits, and broader service standards.

Completion Date: 2000 (Audit Recommendation)  
1999 (WSF Response)

WSF Response: Concur.

Status: In mid-2000, WSF completed a comprehensive review of its strategic goals, initiatives, and accomplishments, identifying specific initiatives for completion by the closure of the current biennium. Those were reviewed and updated in December 2000. WSF has also developed a system of standing committees to better oversee and coordinate broad program areas such as capital, training, safety, service, etc.

**Recommendation 22:**

Validate the current Travel Forecast Model (TFM) forecast with a new origin destination (O/D) study and augment the current supply side analysis with demand elasticity and fleet optimization analyses.

Completion Date: 1999 (Audit Recommendation)  
2000 (WSF Response)

WSF Response: Concur.

Status: Since January 1999, WSF has embarked on the following activities:

- Developed data collection and model update programs.

- Formed a Technical Advisory Committee consisting of nationally renowned travel forecasting experts and staff from various jurisdiction who have an interest in ferry system planning to advise WSF staff on the data collection and model update programs.
- Collected comprehensive origin destination travel surveys of ferry riders in spring 1999. The surveys were geo-coded, processed, and analyzed. The sampling plan and administration were included in the *1999 Travel Survey Technical Report of Methods* issued in May 2000 and results included in the *WSF 1999 Travel Survey Analysis & Results Report* issued in June 2000.
- Collected stated preference survey of the existing ferry riders to assess their preferences with respect to a number of hypothetical “new” ferry routes and changes in service levels. Statistical analyses were performed and results included in the *Stated Preference Survey Final Report* issued in June 2000.
- Developed final scope last summer for updating the existing WSF travel forecasting model and its databases.

**Recommendation 23:**

Conduct a “clean slate” fleet and service optimization study to identify and evaluate benefits-costs of an unconstrained fleet and compare to the current 20-year plan.

Completion Date: 2000 (Audit Recommendation)  
2000 (WSF Response)

WSF Response: Partially Concur.

Status: Work on the “clean slate” fleet and service optimization study has been placed on hold subsequent to the passage of I-695 and pending completion of the Joint Legislative Task Force in Ferries recommendation along with the outcome of the 2001 legislative session. Once a firmer picture of WSF’s base route structure, tariff and traffic demands are established, WSF will be in a better position to conduct the fleet and service optimization study during the next update cycle of the Washington Transportation Plan.

**Recommendation 24:**

Develop a Life Cycle Cost Model for terminals.

Completion Date: 2000 (Audit Recommendation)  
2001 (WSF Response)

WSF Response: Concur.

Status: WSF has expanded its Life Cycle Cost Model for terminals to include all structures. An inclusive inventory has been completed and life cycles established for each component. Although initial cost information has been included, a consultant had been retained to revise costs based on improved estimates.

**Recommendations 25 - 28:**

Although the Joint Legislative Audit and Review Committee adopted the final report and thus each of the above recommendations, no position was taken on recommendations 25 – 28. Issues surrounding those recommendations were scheduled to be addressed in Phase II of the Ferry System Performance Audit. These recommendations are identified below.

**Recommendation 25:**

If public/private partnerships are to be pursued, the legislature should consider amending current legislation to eliminate barriers to private ferry operations in Puget Sound.

**Recommendation 26:**

Conduct a preliminary Request for Qualifications (RFQ) or Request for Proposals (RFP) process to assess current interest and/or ability of the private sector to be a partner in POF and/or international service.

**Recommendation 27:**

Establish definitive goals for public/private partnership for the international service.

**Recommendation 28:**

Evaluate feasibility and merits of a summer season international service.

***Washington State Ferries Management of Vessel Refurbishment Programs – 1991***

In 1991, a study was conducted of the Ferries' management of vessel refurbishment programs. The objectives of the study were to:

- a. Evaluate the ferry refurbishment process and procedures, particularly those related to vessel inspection, engineering, cost estimating, construction management, change order management, and budget procedures.

- b. Compare the process used by the Washington State Ferries with other marine operations.
- c. Forward recommendations to improve the process.

During the 1998 Department of Transportation Ferry System Performance Audit, a follow-up of recommendations from the 1991 study was conducted. The following identifies the status of those recommendations as stated in the 1998 report:



1991 Report Recommendation	Status at Time of 1998 Audit		
	Fully Implemented	Partially Implemented	Not Implemented
1. Reduce the organized layers between the assistant secretary and those directly responsible for engineering design and construction management. Further, create a senior level position solely responsible for new construction and refurbishment programs reporting directly to the assistant secretary.	✓		
2. The position descriptions for the two vacant senior management positions should include a prerequisite for previous shipyard and/or vessel maintenance management experience.	✓		
3. The Washington State Ferry system should continue its policy of establishing an in-house design engineering capability with continuing use of outside design consultants as required.	✓		
4. Assign Ships to "Single Owner."	✓		
5. The Department of Transportation and the Legislative Transportation Committee should support a policy of renewed shipyard competition and additional shipyard capacity in the region.	✓		
6. Formalize refurbishment decision process.	✓		
7. Establish a Steel Maintenance Program.			✓
8. Establish formal pre-refurbishment inspection procedure.			✓
9. Standardize Work Scoping Process.		✓	
10. Develop a procedure for estimating planned growth.		✓	

Status at Time of 1998 Audit

1991 Report Recommendation	Fully Implemented	Partially Implemented	Not Implemented
11. Develop a standard structure for unit pricing.	✓		
12. Specify bid lots for all planned growth.	✓		
13. Revise standard contract language on the use of unit prices.	✓		
14. Award planned growth along with base work package.	✓		
15. Require the shipyard to provide additional management tools.	✓		
16. Improve Change Order Management Procedures.	✓		
17. Modify change approval authority.	✓		
18. Establish an audit function within Washington State ferries.	✓		
19. Formalize the current Asbestos Abatement Program.		✓	
20. Strengthen budgetary procedure to more closely monitor budget revisions.	✓		
21. Develop guidelines for project prospectus and program budget estimate compared to actuals in post program review.	✓		
22. Policy implications of schedule and budget adherence should be more clearly communicated to the Legislative Transportation Commission in the original budget and subsequent versions.	✓		

Current status of recommendations either partially or not implemented as reported in the 1998 audit:

**Recommendation 7:**

Establish a Steel Maintenance Program.

1998 Audit Status: Not Implemented

Current Status: See 1998 Follow-up, Recommendation #14.

**Recommendation 8:**

Establish formal pre-refurbishment inspection procedure.

1998 Audit Status: Not Implemented

Current Status: On a regular basis, copies of work scheduled to be accomplished on each vessel at the WSF's repair facility are being received. This list determines opportunities to inspect systems and equipment that is open for maintenance work. All repair facility shop foremen are requested to provide information regarding on-going work, any future problems they might be concerned about, and any recommendations for life cycle periods. In addition, a destructive testing program was established as part of the inspection process – e.g., removing deck tile and underlayment to look at deck steel, cutting piping open to inspect interior portions, etc.

Monthly Vessel Condition Worksheets from each vessel are also utilized. These worksheets rate the major systems on each vessel by assigning a numerical value to each system reflecting its condition. Feedback is being received from the Vessel Repair Engineer regarding observations from inspection personnel administering commercial shipyard contracts. This information is used in the preservation program.

**Recommendation 9:**

Standardize Work Scoping Process.

1998 Audit Status: Partially Implemented

Current Status: Standard specification items are currently under final review. This will be implemented by the first quarter of 2001.



**Recommendation 10:**

Develop a procedure for estimating planned growth.

1998 Audit Status: Partially Implemented

Current Status: A procedure has been developed and was implemented in recent contracts (e.g., M.V. Yakima). The procedure will be incorporated into the Vessel Engineering Construction Manual.

**Recommendation 19:**

Formalize the current Asbestos Abatement Program.

1998 Audit Status: Partially Implemented

Current Status: The Washington State Department of Transportation's Asbestos Operations and Maintenance Manual provides the direction for WSF's Asbestos Abatement Program. However, the Manual is currently in draft format. The Manual provides specific procedures to facilitate the proper management of asbestos containing materials in buildings and ferries.

All vessels are on a periodic survey schedule. Each will be reviewed again in 2001.